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# Harms from a partner's drinking: an international study on adverse effects and reduced quality of life for women

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#### Abstract

**Background:** Partners of heavy drinking individuals can be detrimentally affected as a result of their partner's drinking.

**Objectives:** The aim of this study is to identify the proportion of heterosexual intimate partner relationships with a heavy drinking male that results in reported alcohol-related harm and to investigate the impact of this on wellbeing in ten countries.

**Methods:** This study uses survey data from the GENAHTO Project on Alcohol's Harm to Others in 9 countries (10,613 female respondents, 7,091 with intimate live-in partners). Respondents were asked if their partners drinking had negatively affected them as well as questions on depression, anxiety and satisfaction with life.

**Results:** The proportion of partnered respondents that reported having a harmful heavy drinking partner varied across countries, from 4% in Nigeria and the U.S. to 33% in Vietnam. The most consistent correlate of experiencing harm was being oneself a heavy episodic drinker, most likely as a proxy measure for the acceptability of alcohol consumption in social circles. Women with a harmful heavy drinking partner reported significantly lower mean satisfaction with life than those with a partner that did not drink heavily.

**Conclusions:** Harms to women from heavy drinking intimate partners appear across a range of subgroups and impact on a wide range of women, at least demographically speaking. Women living with a heavy drinking spouse experience higher levels of anxiety and depression symptoms and lower satisfaction with life

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#### Kevwords

alcohol-related harm; intimate partner; spouse; cultural context

## Intimate partner drinking and alcohol-related harm: a cross-national analysis

#### Introduction

Alcohol contributes to causing and/or exacerbating issues within the family environment, often negatively impacting the economic, physical and emotional wellbeing of household members, and ultimately contributing to relationship breakdown and sometimes family violence (Berends et al. 2014). Partners of heavy drinking individuals are often detrimentally affected as a result of a partner's drinking (Orford et al. 2010).

Alcohol consumption is a highly gendered phenomenon globally, with men more likely to drink, consume larger quantities, and harm themselves or others while doing so (Wilsnack et al. 2005). Far more women than men are victims of serious alcohol-related family violence (Laslett et al. 2015), and in the Australian Alcohol's Harm To Others (AHTO) survey women were more likely to report having a heavy drinking intimate partner and more likely to report experiencing harm from their partner's drinking than were men (Laslett et al. 2016). Beyond physiological explanations, the link between masculine drinking behaviour and privilege is one of several sociological explanations for this widespread disparity, as is how the social responsibilities of men and women differently influence drinking behaviour (Kuntsche 2011). The gender imbalances both in privilege and in heavy drinking are critical factors in IPV (Abramsky et al. 2011). Alcohol consumption is present in over a third of events involving IPV (Reingle et al. 2014), and is thought to also increase the severity of IPV (Graham et al. 2011; Testa et al. 2003). In a ten-country study in the Americas (Graham et al. 2008), women in nine countries were more likely than men to report that the partner, or both the victim and the partner, were drinking at the time of the incident, and there was some evidence that problem behaviour from drinking may be more likely to occur in "dry" countries (i.e., countries where drinking is not integrated in daily life) than in "wet" countries where drinking is more routinely done (Graham et al. 2008).

The present study uses data from the Gender and Alcohol's Harm to Others (GENAHTO) Collaborative study of harms from others' drinking (http://genahto.org/) to investigate how reports of heavy spousal or partner drinking are associated with alcohol-related harm across nine countries, including both low and middle income, and high income countries. The original aim of this project was to examine the experience of both men and women who live with a heavy drinker. However with less than 2% of the male sample living with a heavy female drinker, the sample sizes for the analyses were underpowered. Therefore the focus of this paper is on women who live with men. The impact on the mental health and wellbeing of women experiencing intimate partner violence is well documented (De Mendonça and Ludermir 2017), however little has been done on the impact on the well-being of women of broader, and often less severe, harms that are attributable to the drinking of their partners. Furthermore, little of this work has been done on general population samples or with a

cross-national sample that allows some insight into how this experience varies in different cultures.

Therefore the paper aims to capture what proportion of women in relationships consider their partner's drinking to negatively affect them; what characteristics are likely to protect these women as significant others from alcohol-related harm, and whether their general wellbeing and mental health is impacted as a result. It is hypothesised that women who participate in heavy episodic drinking themselves will be more likely to have a harmful heavy drinking spouse. Crucially, this is considered to be a correlate, not a cause, of this harm. It is also hypothesised that the existence of a harmful heavy drinking spouse would have an impact on respondents whereby their anxiety and depression symptoms will be significantly higher than for those with a non-harmful partner, while their self-reported wellbeing will be significantly lower.

#### Method

**Sample**—This paper draws on the data from nine countries participating in the GENAHTO project. The conceptual history, survey design, sampling, and response rates of seven of the nine studies have been reported elsewhere (Callinan et al. 2016). Further information on the U.S. (Kaplan et al. 2017) and Irish (Hope et al. 2018) studies have also been published. Briefly, this study uses data from nine cross-sectional probability sample surveys (seven of them national and two regional - India and Nigeria) undertaken between 2008 and 2015, in Australia, India, Ireland, Lao People's Democratic Republic (Lao PDR), Nigeria, Sri Lanka, Thailand, the United States, and Vietnam. Six of the countries were selected as they were part of a joint WHO-Thai-Health study on alcohol's harm to others (Chile, India, Nigeria, Sri Lanka, Thailand and Vietnam), Laos PDR's inclusion was supported by Thai-Health, while Australia, Ireland, New Zealand and the US all completed and funded their own studies in order to be included. The aim of all of these studies was to provide estimates of the prevalence of harm experienced due to the drinking of others in each country. The surveys were conducted face-to-face in area-probability household samples, with the exception of Australia, Ireland and the United States, where people were interviewed via Computer Assisted Telephone Interviewing (CATI), with samples selected through random digit dialling stratified by area code, with some oversampling of area codes that usually have lower response rates. Response rates are shown in the second column of Table 1. Australia and Ireland reported a lower response rate of 35% and 37%, a consequence of telephone sampling (Pew Research Centre 2012).

Responses to two questions were considered for inclusion into the sample. Respondents who said (1) they were married or living with a partner when asked 'What is your marital status', or (2) who, when asked 'Who do you live with', said they lived with a spouse, partner or common-law spouse or de-factor partner, were defined as having a partner for the purposes of this study and consequently included. The Australian survey did not ask respondents' marital status; instead, inclusion was based solely on data from the latter question. Clear responses on the second criterion were not available in the Nigerian survey; thus, inclusion was based solely on the former question in this country. Less than 10 respondents across all

countries reported living with a same sex partner, these respondents were also removed from the analytic sample.

Informed consent was obtained from all people who agreed to participate in the study. Ethical approval was gained from the appropriate human subjects' authority by all national sites, as well as from the World Health Organisation Ethics Review Committee, and from the La Trobe University Research and Ethics Committee of Australia to house the data.

Measurement—Questions on experience of harm were first developed for the seminal Australian study on Alcohol's Harm to Others and revised for international use in conjunction with ThaiHealth and the World Health Organisation (Rekve et al., 2012). Respondents were asked "Thinking about the last 12 months, can you think of anyone among the people in your life -- your family, friends, coworkers or others -- who you would consider to be a fairly heavy drinker, or someone who drinks a lot sometimes? If respondents responded to this by stating that they had a heavy drinking partner they were then asked "Would you say your partner's drinking negatively affected you in some way in the last 12 months?" Using responses to these questions, respondents with partners were classified as having a partner who is not a heavy drinker, a partner who drinks heavily but is not harmful, or a harmful heavy drinking partner—the last being the primary outcome variable of interest. For regression purposes, this variable was further collapsed into 'no harm' versus 'harm', where 'no harm' is all those people with no negative impact from the partner's drinking, regardless of the partner's drinking status.

In order to measure general wellbeing the Personal Wellbeing Index (Cummins et al. 2003) item, 'how satisfied are you with your life as a whole', was used, which participants answered on a scale of one to ten, and mean scores are reported. A single item regarding anxiety and depression was also used. This item asked respondents 'Which of these statements best describes your own state of health today' with three response options I am NOT anxious or depressed/I am MODERATELY anxious or depressed/I am EXTREMELY anxious and depressed. For simplicity, the last two of these categories were combined for analyses in this paper. To identify those who stated that they were experiencing anxiety and/or depression symptoms. This item was drawn from a widely used tool to measure health status and wellbeing (Rabin and de Charro 2001). Different questions on anxiety and depression were asked in the U.S study, so the results from this country are excluded for the analyses using the anxiety and depression measures presented in Table 4.

An indicator for drinking pattern of the respondent was derived from the reported frequency of heavy episodic drinking (HED; 50-60g or more of pure alcohol consumed on a single occasion). Due to the small number of heavy drinking female respondents, a dichotomous variable was derived (abstainer or no HED in last year; HED in last year). Area of residence (rural, non-rural), presence of children in the household, and highest level of education achieved were included in the analysis as potential correlates of alcohol-related harm. These were included as rurality, education and the presence of children in the house is thought to impact on the likelihood of harm (Campbell et al. 2003; Laslett et al. 2011) and these proportions varied within countries.

**Analysis**—All analyses were undertaken using Stata version 14 (StataCorp 2014); data has been weighted for the likelihood of being interviewed based on the number of adults in the household and to account for disproportionate representation of males or females, compared to country-specific estimates. Australian, Irish and U.S. data was also post-weighted to account for disproportionate representation in the sample by age or location as compared to the relevant census estimates.

Logistic regression models were estimated for the subsample of women respondents with a partner, to predict those reporting that they had a partner whose drinking negatively affected them. Bivariate relationships between individual predictors and outcome were calculated, and significant results are designated with asterisks next to the prevalence rates shown in Table 3. In each of these models missing data was less than 5% and those with missing data were excluded – the two exceptions for this are noted in Table 3. Welch's t-test of unequal variances was performed to compare the mean satisfaction with life between partnered women with and without a harmful partner. Comparison of proportions was undertaken, testing the hypothesis that proportions with anxiety or depression (and low quality of life) are the same between partnered women who experienced harm and those that did not.

#### Results

In Table 1, countries are arranged in descending order of Gross National Income per capita (GNI) in 2013 (World Bank 2018). The number of women respondents, those with a partner, mean age, and a range of other demographic variables are shown in Table 1. Proportions living with a partner varied substantially, from 45% in the U.S. to 84% in India and Vietnam. The mean age of respondents living with a partner was notably high in the U.S, while being lower in India and Sri Lanka. The proportion that lived with children appeared to be impacted by age, with this number being low in U.S. and higher in countries with younger respondents. The total number of people in the house varied significantly by country, as would be expected. The proportion of women who participated in heavy episodic drinking ranged from a little over 1% in Sri Lanka to nearly half in Ireland.

The proportion of women who reported a heavy drinking partner ranged from 4% in Nigeria to 33% in Vietnam. The proportion of harmful heavy drinkers was, of course, dependent on the proportion of partners reported to be heavy drinkers in the first place. Therefore the country with the highest proportion of women reporting a harmful heaving drinking partner was again Vietnam with 29%. However, interestingly, the proportion of heavy drinkers that were harmful was very high in the countries that reported the highest and lowest prevalence of heavy drinking partners, over 90% in both Nigeria and Vietnam. Conversely, less than a quarter of women in Laos with a heavy drinking partner reported that this partner's drinking was harmful.

In Table 3 the prevalence of reporting a harmful heavy drinking partner in each country are shown, with significance values taken from bivariate odds ratios predicting the likelihood of harm. For the binary results, there were few significant demographic correlates of this harm within each country. Significance levels from the bivariate models are shown in Table 3, the odds ratios can be seen in Supplementary Table 1. Older women in Australia were significantly less likely to have a harmful heavy drinking partner than younger drinkers,

while in Vietnam and India those who completed high school were less likely to have a harmful heavy drinking partner. In India, those who lived in non-rural areas were more likely to have a harmful heavy drinking partner.

More consistently, those who participated in heavy episodic drinking themselves were more likely to have a harmful heavy drinking partner. This pattern was found in Australia, the U.S., Thailand, Sri Lanka, Vietnam and Laos, but not in Ireland or Nigeria.

In order to assess the impact of living with a harmful heavy drinking partner, self-reported life satisfaction, and experience of anxiety or depression were examined. All women, partnered or not, are included in this analysis (excluding U.S. women). T-tests between women with partners who drink heavily and women with partners who do not were calculated. Respondents with a harmful partner were significantly more likely to experience anxiety and depression and report reduced satisfaction with life in Australia, Ireland, Sri Lanka, India and Vietnam. Neither of these analyses produced significant differences in Thailand or Lao PDR. Interestingly, it is worth noting that the reported incidence of anxiety or depression or satisfaction with life in those with no partner were often similar to those with a harmful drinking partner, indicating that a having a harmful heavy drinking partner negated the benefits of having a partner in the first place.

#### **Discussion**

As predicted, the respondents own alcohol consumption, likely as a proxy for the consumption patterns of the broader circles of both the respondent and the perpetrator, was one of the more consistent correlates of harms experienced by women in our nine countries. Furthermore, there is evidence to suggest that this harm does have an impact on the mental health and wellbeing of these women, with women in seven of the nine countries reporting higher self-reported anxiety or depression and lower wellbeing than those without a heavy drinking partner.

The psychological literature investigating the impact of alcoholism on the 'significant others' of drinkers has highlighted the magnitude of stress and suffering experienced by those in the social network of heavy drinkers, and especially by partners (Dussaillant and Fernandez 2015; Greenfield et al. 2016; Laslett et al. 2011). While much of the literature has focused on families and partners of people with clinical diagnoses of addiction and alcohol dependence, the data reported here, representing a general population of women, reveals that a partner's heavy alcohol consumption, as self-reported, regardless of what that level of consumption actually is or implies (in terms of alcohol dependence), is perceived to negatively impact a substantial minority of intimate partners.

From the analysis it becomes clear that while experience of harm due to a partner's drinking occurs across all the countries studied, the substantial variation between countries could be reflective of a variety of factors besides the realities of day-to-day living with a heavy-drinking partner – factors such as cultural perceptions associated with alcohol consumption, attribution of harms to drinking, or stigma related to reporting family problems (Karriker-Jaffe et al. 2017).

Given the worldwide finding of greater rates of heavy drinking among men than among women (Wilsnack et al. 2009), we were able to investigate experience of harm for partnered women with heavy drinking husbands or male partners. The country percentages of women that report harmful heavy drinking partners fall into low, moderate and high groupings. Much lower prevalence of harm from a partner's drinking was reported in the U.S., Lao PDR, Ireland, and Nigeria (2.5% to 4%); moderate levels were reported in Australia and Thailand (7-11%); and higher levels were estimated in Sri Lanka and India (19-20%). The highest figure was reported in Vietnam (29%). Vietnam and India are arguably the most rapidly developing economies. Vietnam may be more tolerant of male drinking yet we found very high levels of abstinence among women. Gendered drinking patterns are also marked in Sri Lanka, Thailand and India, where Hindu, Buddhist and Islamic philosophies discourage (and proscribe) intoxication – although this prohibition appears to be more effective for women than men. Australia, U.S., Ireland, Lao PDR and Nigeria and have much lower rates of women's abstinence and more gender balanced drinking patterns (World Health Organization 2014).

Orford et al.'s studies from Nigeria discussed the strong sense of community engagement and sense of responsibility there towards problem drinking (Orford et al. 2005). These reduced reports of harm may be a reflection of this or cultural reluctance to report abuse (Wusu 2015) or a higher tolerance of heavier drinking and consequences others might see as abuse. The acceptability of wife beating by women was higher in Lao PDR (58% in 2012) and Nigeria in 2013 (35% women perceived wife beating was acceptable) than in Vietnam in 2014 (28%) and Thailand in 2012 (13%) (World Bank 2016). It should be noted that we appear to be in the midst of a sizeable shift in such attitudes; the equivalent rate approval of wife beating in Vietnam in 2006 was 64%.

An important correlate of harm attributed to a partner's heavy drinking, in seven of the nine societies, was that the woman herself also drank heavily on occasion. This finding reflects a finding noted by Fillmore (1985) more than 3 decades ago and may serve as a more a proximal marker of exposure to heavy drinkers, as women who drink themselves much more likely to live with a heavy drinker (Homish and Leonard 2005). India is the only country where a woman's reporting of HED seems to indicate some protection from harm from a heavy drinking partner. In a culture where women largely abstain from alcohol, this result may indicate that women who reported drinking are representative of a small group, usually of higher socioeconomic status (Benegal et al. 2005), who are challenging traditional gender roles and, perhaps as a result, are in a distinct social network where women are paradoxically more likely to tolerate a partner's problem drinking than abstaining women in that culture.

Although the results varied between societies for rates of reported anxiety or depression, women who were coupled to harmful heavy drinkers reported less satisfaction with life as a whole than other women living in couples. This finding aligns with existing psychology literature that posits that living with a problem drinker can induce stress, self-sacrifice, worry, negatively affecting both the drinker's health and for family wellbeing and functioning, fear, anxiety and poor eating and sleeping, all of which contribute to reduced wellbeing and satisfaction with life (Orford et al. 2005).

Although our results are cross-sectional and cannot establish cause or direction of influence, other research into the association between marital stress and alcohol abuse has highlighted that it is a bidirectional relationship, meaning each can precede and exacerbate the other (Rodriguez et al. 2014). Incongruence in marital expectations or support can increase alcohol consumption, which may further intensify marital distress and resultant happiness. Alternatively, alcohol consumption can magnify marital distress by increasing frequency of conflict and aggression or initiating regulation and control attempts and ultimately reducing relationship satisfaction and individual wellbeing. Although alcohol also has the potential for positive impacts on intimate relationships, bringing couples together and strengthening their sense of togetherness, the results presented here underline its potential for negative effects.

**Limitations**—The analysis is based on cross-sectional data from nine different countries, and cannot identify the causal implications of these correlations. Inconsistency in standardised procedures across all nine countries may also limit the interpretation of the analysis, notably the inability to derive a response rate in the United States and Nigeria, as did the use of slightly different survey instruments from a standard protocol that were adapted to be culturally fitting as appropriate. All items on heavy drinkers, including their classification in the heavy drinker category were based on the subjective assessment of the harmed party. While there are concerns about the subjective perceptions of partner drinking (Rodriguez & Neighbors, 2015), the experience of the harmed party is an important and often overlooked one. Multiple tests across countries has increased the likelihood of false positives. The study was unable to control for all factors which may be involved in women's wellbeing and level of anxiety or depression and cross-cultural differences in the interpretation of these items is not accounted for. The limited number of men with heavy drinking partners precluded examining potential correlates of men's identifying heavy drinking harmful partners; researching this issue quantitatively in general populations would require substantially larger samples, especially in places where women's abstinence from drinking, is the norm. The same went for any investigation of same-sex attracted couples.

#### Conclusion

Given its ubiquity, alcohol has been allowed certain exemptions despite its association with health and social harms both to the drinker and to others (Rehm et al. 2014). While it may seem obvious that many heavy drinkers negatively impact the lives and happiness of their partners, cultural expectations around the world have closeted the issue, resulting in a concern that, while broadly experienced, it is often kept silent. The present analysis reveals the prevalence of harm experienced by women in relation to a partner's drinking. Furthermore, the paper has demonstrated that this harmful drinking is having a detrimental effect on the wellbeing of the spouses of harmful drinkers. Clinicians should be aware of the increased risk for depression and anxiety type symptoms among the partners of heavy drinkers.

### **Supplementary Material**

Refer to Web version on PubMed Central for supplementary material.

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#### References

- Abramsky T et al. (2011) What factors are associated with recent intimate partner violence? Findings from the WHO multi-country study on women's health and domestic violence BMC Public Health 11:109
- Benegal V, Nayak M, Murthy P, Chandra P, Gururaj G. Women and alcohol in India In: Obot I, Room R, editors. Alcohol, Gender and Drinking Problems: Perspectives from Low and Middle Income Countries. Geneva: World Health Organization; 2005;59–124.
- Berends L, Ferris J, Laslett A-M (2014) On the nature of harms reported by those identifying a problematic drinker in the family, an exploratory study Journal of Family Violence 29:197–204 doi:DOI 10.1007/s10896-013-9570-5
- Callinan S et al. (2016) Alcohol's harm to others: An international collaborative project International Journal of Alcohol and Drug Research doi:10.7895/ijadr.vXiY.218
- Campbell J, et al. (2003) Risk Factors for Femicide in Abusive Relationships: Results From a Multisite Case Control Study. American Journal of Public Health 93(7):1089–1097 doi:10.2105/ajph. 93.7.1089 [PubMed: 12835191]
- Crime Statistics Agency (2016) Family incidents, year ending 31 March 2016. https://www.crimestatistics.vic.gov.au/crime-statistics/latest-crime-data/family-incidents Accessed 6 September 2016
- Cummins RA, Eckersley R, Pallant J, van Vugt J, Misajon Rose Anne (2003) Developing a national index of subjective wellbeing: The Australian Unity Wellbeing Index Social Indicators Research 64:159–190
- De Mendonça M, Ludermir A (2017) Intimate partner violence and incidence of common mental disorder. Revista de Saúde Pública 51(32) doi:10.1590/S1518-8787.2017051006912
- Dussaillant F, Fernandez M (2015) Alcohol's Harm to Others' Well-Being and Health: a Comparison Between Chile and Australia Alcohol and Alcoholism 50:346–351
- Graham K et al. (2008) Comparison of partner physical aggression across ten countries In: Graham K, Bernards S, Munné M, Wilsnack S (eds) Unhappy hours: Alcohol and partner aggression in the Americas (Scientific and technical publications) No 631. Pan American Health Organisation, Washington, D.C.
- Graham K, Bernards S, Wilsnack SC, Gmel G. Alcohol may not cause partner violence but it seems to make it worse: a cross national comparison of the relationship between alcohol and severity of

- partner violence. J Interpers Violence. 2011;26:1503–23. doi:10.1177/0886260510370596. [PubMed: 20522883]
- Greenfield T, Karriker-Jaffe KJ, Kerr W, Ye Y, Kaplan L (2016) Those harmed by others' drinking in the US population are more depressed and distressed Drug and Alcohol Review 35
- Homish G, Leonard K (2005) Marital quality and congruent drinking Journal of Studies on Alcohol and Drugs 2005
- Hope A, Barry J, Byrne S (2018) The untold Story: Harms experienced in the Irish population due to others drinking Summary Report, . Health Service Executive, Dublin
- Kaplan L, Nayak M, Greenfield T, Karriker-Jaffe KJ (2017) Alcohol's Harm to Children: Findings from the 2015 United States National Alcohol's Harm to Others Survey. Journal of Pediatrics 184 doi:10.1016/j.peds.2017.01.025
- Karriker-Jaffe KJ, Room R, Giesbrecht N, Greenfield T (2017) Alcohol's harm to others:

  Opportunities and challenges in a public health framework Journal of Studies on Alcohol and Drugs Accepted
- Kuntsche S (2011) Snow White's heritage: gender, social roles and alcohol use. Maastricht university
- Laslett A-M, Jiang H, Room R (2016) Alcohol's involvement in an array of harms to intimate partners Drug and Alcohol Review Early Online View
- Laslett A-M, Mugavin J, Jiang H, Manton E, Callinan S, Maclean S, Room R (2015) The hidden harm: Alcohol's impact on children and families. Foundation for Alcohol Research and Education, Canberra
- Laslett A-M, Room R, Ferris J, Wilkinson C, Livingston M, Mugavin J (2011) Surveying the range and magnitude of alcohol's harm to others in Australia Addiction 106:1603–1611
- Orford J et al. (2005) Coping with alcohol and drug problems: the experiences of family members in three contrasting cultures. Routledge, East Sussex
- Orford J, Velleman R, Copello A, Templeton L, Ibanga A (2010) The experiences of affected family members: A summary of two decades of qualitative research Drugs: Education, Prevention & Policy 17:44–62 doi:10.3109/09687637.2010.514192
- Pew Research Centre (2012) Assessing the representativeness of Public Opinion Surveys. http://www.people-press.org/2012/05/15/assessing-the-representativeness-of-public-opinion-surveys/. Accessed 8/2/2016
- Rabin R, de Charro F (2001) EQ-5D: a measure of health status from the EuroQol Group Annals of Medicine 33:337–343 [PubMed: 11491192]
- Rehm J, Lachenmeier D, Room R (2014) Acceptable risk? Why does society accept a higher risk for alcohol than for other voluntary or involuntary risks? BMC Medicine 12:189 [PubMed: 25424648]
- Reingle J, Jennings W, Connell N, Businelle M, Chartier K (2014) On the pervasiveness of event-specific alcohol use, general substance use, and mental health problems as risk factors for intimate partner violence. Journal of Interpersonal Violence 29(1):2951–2970 [PubMed: 24664253]
- Rekve D, Thamarangsi T, Waleewong O, Room R & Lastlett A-M. (2012). The Harm to Others from Drinking Phase 1 Protocol. World Health Organisation: Geneva 10.26181/5b84ebd47b944
- Rodriguez LM, Neighbors C, Knee CR (2014) Problematic alcohol use and marital distress: An interdependence theory perspective Addiction Research & Theory 22:294–312 doi:doi: 10.3109/16066359.2013.841890
- Rodriguez LM, & Neighbors C (2015). An Interdependent Look at Perceptions of Spousal Drinking Problems and Marital Outcomes. Alcohol, 49(6), 597–605. 10.1016/j.alcohol.2015.05.002 [PubMed: 26091752]
- StataCorp (2014) Stata Statistical Software: Release 14. StataCorp LP, College Station, TX
- Testa M, Quigley BM, Leonard KE (2003) Does alcohol make a difference? Within-participants comparison of incidents of partner violence Journal of Interpersonal Violence 18:735 [PubMed: 14675506]
- Wilsnack R, Wilsnack S, Kristjanson A, Vogeltanz-Holm N, Gmel G (2009) Gender and alcohol consumption: patterns from the multinational GENACIS project Addiction 104:1487–1500 [PubMed: 19686518]

Wilsnack RW, Wilsnack SC, Obot IS (2005) Why study gender, alcohol and culture? In: Obot I, Room R (eds) Alcohol, Gender and Drinking Problems. WHO Press, Geneva, pp 1–23

- World Bank (2016) Women who believe a husband is justified in beating his wife. http://data.worldbank.org/indicator/SG.VAW.REAS.ZS?contextual=region&locations=VN.
- World Bank (2018) World Development Indicators. http://databank.worldbank.org/data/reports.aspx? source=2&country=&series=NY.GNP.PCAP.CD&period. Accessed 8th January 2018
- World Health Organisation (2012) Intimate partner violence. World Health Organisation, Geneva
- World Health Organization (2014) Global Status Report on Alcohol and Health. World Health Organization, Geneva
- Wusu O (2015) Predictors and Implications of Intimate Partner Violence Against Married Female Youths in Nigeria Journal of Family Violence 30:63–74 doi:10.1007/s10896-014-9654-x

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# Table 1

Descriptive and demographic summaries of the sample (women with a spouse or de facto partner).

Country (N=8,771)	Country (N=8,771) Response Rate (%)	Female Respondents, N	Married or Living with a spouse or partner, N* (% of all female respondents)	Mean age (years)	Live with children (% of all women)	Mean number of people in household (of female respondents)	Respondent's HED <sup>†</sup> drinking (% of all women)
Australia	35.2	1,560	949 (66.8)	46.8 (45.9, 47.8)	59.2 (55.9, 62.5)	3.3 (3.2, 3.4)	39.0 (35.8, 42.3)
United States	<sub>#</sub> 09	1,639	729 (44.5)	52.1 (51.0, 53.2)	36.9 (33.5, 40.5)	3.1 (3.3, 3.5)	8.4 (6.6, 10.8)
Ireland	37.2	1,006	598 (59.4)	47.9 (46.8, 49.1)	61.7 (57.6, 65.6)	3.4 (3.0, 3.2)	48.6 (44.4, 52.8)
Thailand	94.2	1001	(663) (89)	46.3 (45.3, 47.3)	78.1 (74.8, 81.2)	4.9 (4.7, 5.1)	9.2 (7.1, 11.9)
Sri Lanka	93.0	1,261	944 (74.8)	38.8 (38.1, 39.5)	89.3 (86.9, 91.4)	4.9 (4.8, 5.1)	1.2 (0.6, 2.2)
India	97.0	1,780	1,485 (84.4)	37.5 (36.8, 38.2)	93.2 (91.9, 94.4)	5.3 (5.2, 5.5)	9.1 (7.6, 10.8)
Nigeria	##66	088	484 (66.2)	40.0 (38.7, 41.3)	87.9 (83.8, 91.0)	6.6 (6.1, 7.2)	7.0 (4.9, 9.9)
Vietnam	99.2	748	631 (83.9)	44.3 (43.5, 45.2)	94.6 (92.8, 96.0)	4.9 (4.7, 5.2)	3.8 (2.4, 6.0)
Laos	99.0	738	588 (76.7)	40.0 (39.0, 41.1)	94.4 (91.8, 96.2)	6.3 (6.0, 6.6)	27.7 (23.9, 31.9)

<sup>\*</sup>This is the final subsample and includes all females who said that they were married or live with a partner or said they were living with a spouse or partner despite saying that they were not married.

<sup>&</sup>gt;5% missing data

 $<sup>\</sup>vec{T}_{\mbox{Heavy}}$ episodic drinking in past year

<sup>#</sup>Cooperation rate. Response rate was unavailable for this data set.

<sup>##</sup> A response rate of 99% was reported among households where someone was home. (The reported response rate was 99%, but random selection was not followed within the household.)

Table 2:

Presence of a heavy drinking (HD) spouse and harmful spouse/partner among women with spouses or partners (weighted %)

Country (N)	No HD spouse	HD spouse	Harmful HD spouse	% Harmful (harmful/total HD spouses)
Australia $(1,634)$	82.2 (79.5, 84.6)	17.8 (15.4, 20.5)	7.4 (5.8, 9.4)	41.8 (34.1, 49.9)
United States (1,358)	96.2(94.5, 97.3)	3.8 (2.7, 5.5)	2.5 (1.6, 3.9)	64.3 (45.4, 79.6)
Ireland (1,171)	94.3 (92.1, 95.9)	5.7 (4.1, 7.9)	4.1 (2.8, 6.1)	72.2 (55.8, 84.2)
Thailand $(I, I70)$	78.5 (75.0, 81.7)	78.5 (75.0, 81.7) 21.5 (18.3, 25.0)	11.2 (8.9, 14.0)	52.2 (43.5, 60.9)
<b>Sri Lanka</b> (1,903)	74.7 (71.6, 77.6)	74.7 (71.6, 77.6) 25.3 (22.4, 28.4)	19.0 (16.4, 21.9)	75.3 (68.9, 80.7)
India(2,820)	68.5 (65.9, 70.9)	31.5 (29.1, 34.1)	19.6 (17.5, 21.8)	62.1 (57.5, 66.5)
Nigeria (1,481)	96.3 (94.0, 97.7)	3.7 (2.3, 6.0)	3.5 (2.1, 5.6)	92.3 (72.8, 98.2)
$\mathbf{Vietnam}(N=1,289)$	67.5 (63.3, 71.5) 32.5 (28.5, 36.7)	32.5 (28.5, 36.7)	29.2 (25.4, 33.4)	90.1 (84.4, 93.8)
<b>Lao PDR</b> ( $N = 1,000$ ) 83.4 (79.7, 86.6)	83.4 (79.7, 86.6)	16.6 (13.4, 20.3)	4.0 (2.6, 6.2)	24.3 (16.1, 35.0)

N = 6093. Significant differences in percentages between groups and countries are indicated by confidence intervals which do not overlap.

 $^{\it a}$  Please note that some of the ratios may appear inaccurate due to rounding

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Table 3.

Prevalence of harmful heavy drinking spouses in women in nine countries by each demographic and consumption variable.

Characteristic	Australia (n=949)	United States (n=729)	Ireland (n=598)	Thailand (n=683)	Sri Lanka (n=944)	India (n=1,485)	Nigeria (n=484)	Vietnam (n=631)	Lao PDR (n=588)
	% (CI)	% (CI)	(CI)	% (CI)	% (CI)	(CI)	(CI)	% (CI)	% (CI)
Age									
< 40	10.7 (7.5, 15.0)	3 (1.3, 7.1)	3 (1.1, 7.7)	11.5 (7.6, 17.2)	20.9 (17.3, 25.0)	19.4 (16.8, 22.2)	2.8 (1.5, 5.2)	26.6 (20.9, 33.2)	4.8 (2.7, 8.5)
40+	$5.7^*$ (4.1, 8.0)	2.3 (1.4, 4.0)	4.6 (3.0, 7.1)	11.1 (8.4, 14.5)	16.5 (13.0, 20.6)	19.6 (16.4, 23.4)	4.1 (2.0, 8.1)	30.4 (25.6, 35.7)	3.4 (1.7, 6.4)
Education									
Less than high school	5.5 (3.2, 9.2)	0 -	5.5 (2.2, 12.9)	11.8 (8.9, 15.6)	19.6 (16.7, 22.9)	23.3 (20.5, 26.3)	4.1 (2.3, 7.4)	32 (27.2, 37.2)	3.8 (2.3, 6.2)
At least completion of high school	8.1 (6.2, 10.6)	2.7 (1.7, 4.3)	3.9 (2.5, 6.1)	9.9 (6.7, 14.4)	16.8 (11.6, 23.6)	12.8 *** (10.2, 16.0)	2.3 (0.9, 5.5)	22.6* (17.1, 29.3)	4.7 (2.0, 10.9)
Live with children	uen								
No	7.7 (5.2, 11.2)	2.2 (1.2, 4.0)	3 (1.4, 6.3)	9.8 (6.2, 15.1)	16.3 (9.3, 26.9)	14.2 (9.4, 21.0)	1.4 (0.3, 6.1)	16.8 (8.3, 31.0)	1.6 (0.2, 10.9)
Yes	7.3 (5.3, 9.9)	3 (1.5, 5.8)	4.8 (3.0, 7.7)	11.6 (8.9, 15.0)	19.4 (16.6, 22.4)	20 (17.8, 22.3)	3.7 (2.2, 6.2)	29.9 (26.0, 34.2)	4.2 (2.7, 6.5)
Rurality									
Rural	7.9 (4.4, 13.6)	0 -	4.3 (2.4, 7.5)	12.1 (8.4, 17.1)	19.1 (16.2, 22.5)	15 (11.3, 19.7)	2.3 (1.2, 4.2)	31.5 (26.7, 36.8)	2.5 (1.1, 5.5)
Non-rural	7.4 (5.6, 9.6)	2.4 (1.4, 4.0)	3.9 (2.2, 6.8)	10.7 (7.9, 14.2)	18.7 (13.6, 25.1)	20.7* (18.4, 23.2)	5.3 (2.6, 10.7)	24.5 (19.0, 31.0)	5.3 (3.1, 8.7)
Respondent's drinking	rinking								
Abstainer or no HED $^{\not  au}$	4.6 (3.1, 6.7)	2.2 (1.3, 3.7)	4.5 (2.6, 7.6)	9.9 (7.6, 12.7)	18.7 (16.1, 21.6)	20.6 (18.4, 23.0)	3.8° (2.3, 6.4)	27.9 (24.1, 32.1)	2.8 (1.5, 5.0)
$\mathtt{HED}^{ \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$	11.9***	6.9*	3.7 (2.0, 6.8)	24.3 **	46.3*	11.3*	1.8	59.2 **	7.3*

Note: Bivariate odds ratios used to examine significant likelihood of having a harmful heavy drinker in the house compared to first listed category

\* pc.05, \*\* pc.01,

 $\label{lem:manuscript:problem} \textit{Am J Drug Alcohol Abuse}. \ \text{Author manuscript: available in PMC 2020 January 01}.$ 

\*100">d Author Manuscript >5% missing data.

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Table 4:

women's reports of partner being their MHD and their anxiety/depression and quality of life by presence of a harmful heavy drinking spouse

% (CI) Reported at least moderate anxiety or depression	anxiety or depression	Saustachon	Satistaction with nie as a whole (mean [C.1])	noic (incan [C1])
	partner		ed .	partner
No parmer No harm	Harm	No parmer	No harm	Harm
<b>30.2</b> ( <b>26.1</b> , <b>34.7</b> ) 22.8 (19.9, 25.9)	44.0**(32.1, 56.5)	7.5 (7.3, 7.6)	8.2 (8.1, 8.3)	7.1 (6.6, 7.6)
<b>29.1 (24.7, 33.9)</b> 18.8 (15.7, 22.4)	44.0*(25.8, 63.9)	7.8 (7.7, 8.0)	8.4 (8.2, 8.5)	7.7 (7.1, 8.3)*
<b>16.3</b> ( <b>12.1</b> , <b>21.5</b> ) 16.9 (13.8, 20.7)	24.0 (15.7, 34.9)	7.1 (6.9, 7.3)	7.4 (7.3, 7.6)	6.9 (6.3, 7.5)
<b>17.6 (13.8, 22.2)</b>   12.5 (10.2, 15.2)	18.5*(13.4, 25.1)	5.9 (5.6, 6.1)	6.7 (6.6, 6.9)	5.4 (5.1, 5.7)***
<b>35.8 (30.2, 41.9)</b> 20.2 (17.8, 22.8)	28.0**(23.0, 33.7)	7.6 (7.5, 7.8)	7.3 (7.2, 7.4)	6.1 (5.8, 6.3)***
<b>26.4 (21.4, 32.2)</b>   19.2 (15.0, 24.3)	28.3 (10.6, 56.9)	6.9 (6.6, 7.1)	7.1 (6.9, 7.4)	5.5 (4.3, 6.7)*
<b>21.0</b> ( <b>14.4</b> , <b>29.6</b> ) 16.2 (12.9, 20.3)	36.4 *** (28.9, 44.6)	6.3 (6.0, 6.5)	6.7 (6.5, 6.9)	5.4 (5.1, 5.7)***
<b>16.1</b> ( <b>10.8</b> , <b>23.2</b> ) 9.8 (7.3, 13.0)	17.0 (6.0, 39.7)	7.8 (7.6, 8.1)	7.9 (7.8, 8.1)	7.7 (7.1, 8.3)
	15.2) 22.8) 24.3) 20.3)		18.5*(13.4, 25.1) 28.0**(23.0, 33.7) 28.3 (10.6, 56.9) 36.4***(28.9, 44.6) 17.0 (6.0, 39.7)	18.5 * (13.4, 25.1)       5.9 (5.6, 6.1)       6.7 (6.6, 6.9)         28.0 ** (23.0, 33.7)       7.6 (7.5, 7.8)       7.3 (7.2, 7.4)         28.3 (10.6, 56.9)       6.9 (6.6, 7.1)       7.1 (6.9, 7.4)         36.4 *** (28.9, 44.6)       6.3 (6.0, 6.5)       6.7 (6.5, 6.9)         17.0 (6.0, 39.7)       7.8 (7.6, 8.1)       7.9 (7.8, 8.1)

Significant difference from "no harm"

\* p<0.05; \*\* p<0.01:

\*\* p<0.01; \*\*\* p<0.001